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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,797	09/26/2005	Paul Buschke	100143.00005	4402

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EXAMINER	
WASHBURN, DOUGLAS N	
ART UNIT	PAPER NUMBER
2863	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,797	BUSCHKE ET AL.	
	Examiner	Art Unit	
	Douglas N. Washburn	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9, 10 and 12-16* is/are rejected.

7)☒ Claim(s) *11,17 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 April 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11 October 2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1 The information disclosure statement filed 11 October 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Diaz et al. (US 6,938,488) (Hereafter referred to as Diaz).

Diaz teaches:

Regarding claim 9, an ultrasonic inspection apparatus (inspection apparatus; column 3, line 2) for non-destructive inspection (column 1, line 67) of a work piece (container; column 2, line 26), the work piece having an entrance surface (front wall; column 2, lines 28 and 29) and a back wall (back wall; column 2, line 29).

Regarding claim 9, a transmit/receive probe (transducer; column 10, line 43; figure 1, element 40), the transmit/receiver probe comprising a couplant (rubber layer; column 10, line 39; figure 3, element 42) for coupling to the entrance surface of the work piece (column 13, lines 41-45).

Regarding claim 9, a transmitter (transducer; column 10, line 43; figure 1, element 40) connected to the transmit/receive probe, the transmitter generating transmit pulses (The ultrasonic pulse emitted from the front surface 38 of the transducer 40 in the gun assembly 12 travels through the material in the container being inspected; column 10, lines 51-53) which it then delivers to the probe, wherein the transmit pulses, on the one side, are reflected at the entrance surface of the work piece back to the probe with an entrance echo pulse resulting there from and, on the other side, penetrate the work piece where they are reflected at least once at the back wall of the work piece with a back wall echo pulse resulting there from (When the ultrasonic pulse reaches the far wall of the container, it is reflected back as an acoustic echo to the transmission location. The acoustic echo reaches the transducer 40, which receives this acoustic echo and translates the acoustic echo into an analog electrical signal; column 10, lines 53-58).

Regarding claim 9, a receiver (transducer; column 10, line 43; figure 1, element 40) connected to the probe, the receiver being suited for receiving the entrance echo pulse and the at least one back wall echo pulse and converting the received echo pulses to electric echo signals(When the ultrasonic pulse reaches the far wall of the container, it is reflected back as an acoustic echo to the transmission location. The acoustic echo reaches the transducer 40, which receives this acoustic echo and translates the acoustic echo into an analog electrical signal; column 10, lines 53-58).

Regarding claim 9, a monitor that is connected to the receiver for displaying the electric echo signals received from the receiver (the transducer 40, which receives this acoustic echo and translates the acoustic echo into an analog electrical signal. The analog signal is then sent into the circuit board section 20 for further processing to translate the analog signal into a digital signal. The digital signal is then transmitted from the circuit board section 20 to the computer (e.g., PDA, laptop, desktop, or other computer) 14; column 10, lines 56-63; the display panel of the PDA 14; column 15, line 11).

Regarding claim 9, the ultrasonic inspection apparatus has a bar display (typical waveform displayed on the graphic display (i.e., interface) of the computer 14. This waveform presented on the display is derived from the analog signal received from the transducer 40, which is translated into a digital signal by the digital board 1000, which in turn is received by, and is then presented as a waveform on the display screen of the host computer 14; column 27, lines 7-14), the bar display being suited for showing at least one signal value in real time (column 2, lines 53 and 54), with the signal value being derived from one of the following: the entrance echo, one back wall echo, a plurality of back wall echoes (the transducer 40 is pressed against the near wall of the container, and by sending an acoustic pulse from the transducer so that the ultrasonic pulse travels through the container to the far wall so that an acoustic echo travels back to the transducer 40. Often, a second echo will be generated when the echo traveling back to the near wall is reflected back again to the far wall which in turn results in the second acoustic echo traveling back to the transducer 40; column 26, lines 65 et seq; column 27, lines 1-3).

Regarding claim 10, the work piece under inspection further comprises flaws (defect; column 1, line 51), the transmit pulses penetrating the work piece are also reflected at the flaws with flaw echoes resulting there from, and the bar display being suited for showing a signal value of a signal being derived from one of the following: the flaw echo of one selected flaw or the flaw echoes of a plurality of flaws (due to the fact that there is a differing material interface at the surface of the foreign object (acoustic impedance mismatch), there is an echo resulting from the ultrasonic pulse contacting that interface; column 27, lines column 27, lines 53-56).

Regarding claim 12, the bar display is disposed proximate to the monitor (figures 12, 13, 19a, 19b, 19c).

Regarding claim 13, the monitor has a stripe-shaped area and the stripe-shaped area of the monitor is used as the bar display (figures 12, 13, 19a, 19b, 19c)

Regarding claim 14, the monitor the stripe-shaped area of the monitor is a border area of the monitor (figures 12, 13, 19a, 19b, 19c).

Regarding claim 15, the monitor has a time axis and the bar display is disposed so as to extend transversely with respect to the time axis of the monitor (figures 12, 13, 19a, 19b, 19c)

Regarding claim 16, the monitor has a transverse dimension and the bar display has a length that equals the transverse dimension of the monitor (figures 12, 13, 19a, 19b, 19c).

Allowable Subject Matter

3 Claims 11, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Claim 11 recites, in part, "the bar display permitting to display in multiple colors, and at least two signal values, wherein the two signal values are displayed one above the other in different colors". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 17 recites, in part, "the bar display is realized by a color LCD array". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 18 recites, in part, "the work piece under inspection is composed of at least two sheet metal plates that are joined together by a spot weld joint, and the quality of the spot weld joint is to be determined". This feature in combination with the remaining claimed structure avoids the prior art of record.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNW

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